

REMARKS

FORMAL MATTERS:

Claims 13-19 are pending after entry of the amendments set forth herein.

Claim 13 has been amended to clarify that the method requires the selection of a combination of DNA sequences comprising SEQ ID Nos. 1-27088. Support for this amendment may be found in Claims 1-4 as originally filed and in para. [00201] and [00203].

Claims 1-4 have been previously canceled without prejudice.

Accordingly, no new matter has been added.

In view of the amendments above and the remarks put forth herein, reconsideration and allowance are respectfully requested.

INTERVIEW SUMMARY

Applicants are grateful to Examiner Kapushoc for the telephone interviews held on January 8, 2007 and January 24, 2007 with Applicants' representative, Geri Rochino.

During the interview of January 8, 2007, the Notice of Non-Responsive Amendment was discussed in light of the Restriction Requirement dated October 17, 2005 and subsequent correspondence with the Office relating to the Restriction Requirement and election.

Although the Examiner indicated that claims directed to a combination of DNA sequences comprising SEQ ID NOS: 1-27088 could not be rejoined in the present application, he did indicate that he would consider such claims upon filing a Request for Continued Examination (RCE).

During the interview of January 24, 2007, Applicants pointed out that a Request for Continued Examination may not be submitted because prosecution of the present application is still open.¹ The Examiner then indicated that he would consider claims drawn to a combination of SEQ ID NOS: 1-27088 as a responsive amendment and that the next action issued would be an Action on the Merits.

Accordingly, Applicants are filing a response to the Notice of Non-Responsive Amendment in which independent Claim 13 has been amended to recite a combination of SEQ ID NOS: 1-27088 as kindly suggested by the Examiner.

¹MPEP§ 706.07(h)

RESPONSE TO NOTICE OF NON-RESPONSIVE AMENDMENT TO THE CLAIMS

The Applicants address each of the issues raised by the Examiner separately below:

(A) Restriction Requirement of October 17, 2005

According to the Communication dated September 26, 2006, the Examiner considers the Amendment filed on June 30, 2006 to be non-responsive because new claims 13-19 which recite “SEQ ID NOS: 1-27088” are allegedly drawn to a non-elected invention. The Communication states:

The Requirement for Restriction of 10/17/2005 required, upon election of claims drawn to method of gene mapping, the further election of a specific combination of SEQ ID NOS: 1-27,088 for the examination of claims requiring a combination of particular SEQ ID NOS. In response to the Response to Election (filed 11/16/2005), applicant elected the specific combination of SEQ ID NO: 1 and 2, with traverse on the ground that applicant asserted that it was not clear if the election of a particular combination of SEQ ID NOS was intended as an election of species. Applicant did not traverse on the grounds that claim 3 of the claims restricted by the Requirement for Restriction of 10/17/2005 required each of SEQ ID NO: 1-27,088. Additionally, the Non-Final Office Action of 02/02/2006, in the Election/Restrictions section, clearly indicates that the Sequence election is not an election of species but an election of distinct inventions.

(Communication, P. 2)

The Applicants submit that the Restriction Requirement of October 17, 2005 set out and required election of one of the following groups of claims:

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|-----------|--|
| Group I | Claims 1-4, drawn to methods of gene mapping; |
| Group II | Claims 5-7, drawn to computer-readable medium; |
| Group III | Claim 8, drawn to oligonucleotide primers; |
| Group IV | Claims 9-12, drawn to methods of assessing, susceptibility of a human subject to psoriasis vulgaris. |

In response to the Restriction Requirement, the Applicants elected to prosecute Group I, claims 1-4 which are drawn to methods of gene mapping. As such, new claims 13-19 are drawn to the subject matter of Group I, i.e., methods of gene mapping.

The Examiner further alleges in the Communication that Applicants did not traverse claim 3 on the grounds that the method required each of SEQ ID NOS: 1-27088.

However, with respect to claim 3, the applicants elected the combination of SEQ ID NOS: 1 and 2 with traverse, specifically stating that it is not clear whether the election made for claim 3 is an election of species. Specifically, the Applicants stated that the SEQ ID's specified in claim 3 "... can be

used in the practice of any of the methods of claims 1, 2, and 4. Applicants appreciate that the primer sets in claim 3 represent a large number of polynucleotides; however, should claims 1, 2 and 4 be found to be allowable without limitation to a particular primer pair, then the full scope of original claim 3, which depends from claim 1, should likewise be found allowable.” As a point of clarity, the SEQ ID NOS: 1-27088 are not themselves primers but are sequences that serve as the basis for primers.

(Response to Restriction Requirement, Nov. 16, 2005)

As such, it is clear that with respect to claim 3, the Applicants tentatively elected the combination of SEQ ID NOS: 1 and 2 with traverse on the grounds that it was unclear if the election was an election of species.

Additionally, the Examiner stated in the Restriction Requirement, that the other claims of Group I (claims 1, 2, and 4) will not be limited to the election made for claim 3. Based on the Examiner’s comments, it is clear that the Examiner did not find the elected sequences of claim 3 to be limitations applicable to the methods of gene mapping recited in claims 1, 2 or 4. In other words, the election of Claim 3 was a species election and not an election of a distinct invention.

The Examiner further cites the Office Action dated February 2, 2006, alleging that the Applicants were notified that the Sequence election was not an election of species but an election of distinct inventions.

However, this assertion was addressed in the Response to Office Action dated June 30, 2006 in which the Applicants argued that “the sequences represented by SEQ ID NOS: 1 to 27088 are not used separately but as a single set of 27088 sequences, with each containing at least one microsatellite marker.” Thus each of the sequences represented in claim 3 should not be viewed as a distinct invention, but rather as part of a gene mapping method using a set of sequences of SEQ ID NOS: 1 to 27088 as the basis for PCR primers.

Moreover, the Applicants wish to point out MPEP § 803.04 which provides the following:

Applications claiming only a combination of nucleotide sequences, such as set forth in example (B) which recites “a combination of DNA fragments comprising SEQ ID Nos. 1-1,000,” will generally not be subject to a restriction requirement. The presence of one novel and nonobvious sequence within the combination will render the entire combination allowable.

Similar to Example B above, the claims have been amended for clarity to indicate that they include a combination of nucleotide sequences (SEQ ID NOS: 1 to 27088). As described in Example 1, para [0251] of the instant specification, each of the sequences in the combination were used to prepare a forward and reverse primer and PCR was performed using forward (5'→3') and reverse (3'←5') primers having nucleotide sequences based on each of the sequences in the combination. Accordingly, per MPEP § 803.04, no Restriction Requirement should be applied to the present claims.

Accordingly, the Applicants submit that the response to the Restriction Requirement was proper and that new claims 13-19 are not drawn to non-elected subject matter.

(B) Original claims are different from the new claims

In the Communication, the Examiner further states that the present claims require each of the DNA sequences of SEQ ID NOS: 1-27088 while the original claims required a combination of microsatellite genetic polymeric markers.

Without acquiescing to the correctness of this statement, Claim 13 has been amended to clarify that the method requires the selection of a combination of DNA sequences comprising SEQ ID NOS: 1-27088 and performing PCR using primers based on each of these DNA sequences in the combination.

CONCLUSION

Applicant submits that all of the claims are in condition for allowance, which action is requested. If the Examiner finds that a telephonic interview would expedite the prosecution of this application, please telephone the undersigned at the number provided.

The Commissioner is hereby authorized to charge any underpayment of fees associated with this communication, including any necessary fees for extensions of time, or credit any overpayment to Deposit Account No. 50-0815, order number WING-003CIP.

Respectfully submitted,
BOZICEVIC, FIELD & FRANCIS LLP

Date: 1-25-07

By: Ger N. Rochino
Ger N. Rochino
Registration No. 58,147

Date: Jan 25, 2007

By: Carol L. Francis
Carol L. Francis
Registration No. 36,513

BOZICEVIC, FIELD & FRANCIS LLP
1900 University Avenue, Suite 200
East Palo Alto, California 94303
Telephone: (650) 327-3400
Facsimile: (650) 327-3231